TM 11-6130-356-12

TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL

POWER SUPPLY PP-6148/U (NSN 6130-01-062-3618)

HEADQUARTERS, DEPARTMENT OF THE ARMY
21 AUGUST 1981

WARNING

- High voltages and currents exist in this equipment. Serious injury or death may result from contact with the output terminals or internal circuitry. To avoid injury, be sure that the AC ON/OFF circuit breaker and the DC ON/OFF circuit breaker are set to OFF before connecting or disconnecting any external equipment.
- Explosive gases may be released during battery charging operations. Be sure that the charging area is well ventilated. Do not use matches or an open flame in the charging area. Guard against short circuits; resulting arcs may cause an explosion. Do not disconnect the battery charger adapter cable from the battery until the DC ON–OFF circuit breaker is set to OFF, and the battery charger adapter cable is disconnected from the power supply. Do not attempt to charge a damaged or leaking battery.
- Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.
- Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.
- A periodic review of safety precautions in TB 385–4, Safety Precautions for Maintenance of Electrical/Electronic Equipment, is recommended. When the equipment is operated with covers removed, DO NOT TOUCH exposed connections or components. MAKE CERTAIN you are not grounded when making connections or adjusting components inside the test instrument.

5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

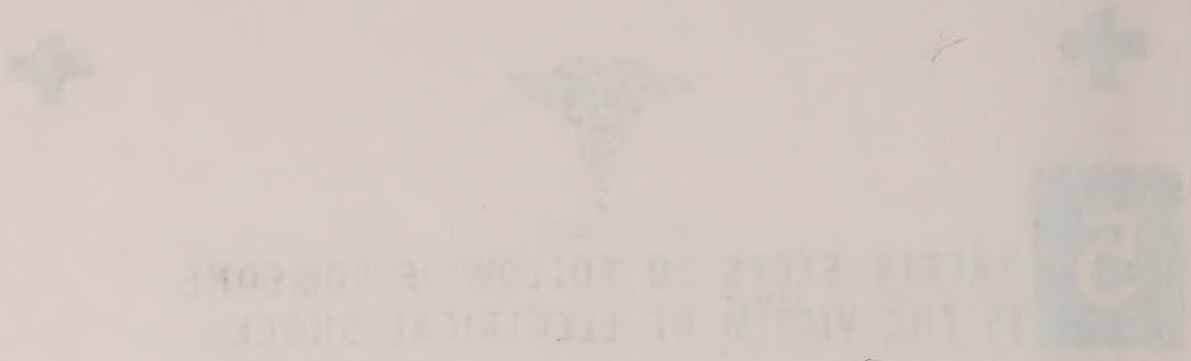
1 DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

2 IF POSSIBLE , TURN OFF THE ELECTRICAL POWER

3 IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH, OR LIFT THE PERSON TO SAFETY USING A WOODEN POLE OR A ROPE OR SOME OTHER INSULATING MATERIAL

4 SEND FOR HELP AS SOON AS POSSIBLE

5 AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION



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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *21 August 1981*

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(NSN 6130-01-062-3618)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to Commander, US Army Communications-Electronics Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. A reply will be furnished to you.

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual describes the lightweight battery charger Power Supply PP-6148/U (fig. 1-1) and covers its installation, operation, and maintenance at the operator and organizational level. It includes operating instructions, operational checks, troubleshooting, and the replacement of parts applicable to operator and organizational maintenance. Throughout this manual, battery charger Power Supply PP-6148/U will commonly be referred to as the PP-6148/U. Appendix A contains a list of publications applicable to this equipment; appendix B contains the list of major components required for initial operation (COEIL); appendix C contains the list of additional items authorized; and appendix D contains the maintenance allocation chart, detailing the repair operations to be performed at the appropriate maintence categories. Appendix E is the expendable supplies and materials list. Repair parts and special tools are listed in TM 11-6130-356-20P (To be published).

1-2. Indexes of Publications

Refer to the latest issue of DA PAM 310-4 to determine whether there are new editions, changes, additional publications or modification work orders pertaining to the equipment.

1-3. Forms, Records, and Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, the Army Maintenance Management System.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/NAVMATINST 4355.73/AFR 400-54/MCO 4430.3E.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33B/AFR 75-18/MCO P4610.19C and DLAR 4500.15.

1-4. Administrative Storage

Administrative storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage, the PMCS should be performed to assure operational readiness. Be sure that the ac power cable is in its storage location in the top panel cover, and that the cover is properly fastened on the top panel. Secure adapter cable to unit. Place the equipment in limited storage, i.e., organizational storage room. Protect equipment from dust, humidity, and extreme temperature changes.

1-5. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be as prescribed in TM 750-244-2.

1-6. Reporting Equipment Improvement Recommendations (EIR)

If your PP-6148/U needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to the Commander, US Army Communications-Electronics Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. We'll send you a reply.

Section II. DESCRIPTION AND DATA

1-7. Purpose and Use

a. Capabilities. Power Supply PP-6148/U can be used as both a battery charging source and a power supply for communications equipment. It provides a nominal output voltage of either 14 Vdc or 28 Vdc, at current up to 10 amperes, where available ac power is either 115 Vac or 230 Vdc single phase 50, 60, or 400 Hz. The output voltage is continuously adjustable within a range of approximately 12 to 16 Vdc or 24 to 32 Vdc according to the nominal voltage selected. A voltage throw-off (CHARGE OVER) capability is provided with (internal) adjustment in the range of 16.0-16.4 Vdc or 32.0-32.8 Vdc. Output current limiting is selectable in five ranges from 0.5 to 10.0 amperes, and is adjustable within the four ranges from 0.5 to 8.0 amperes.

b. Battery Charging Use. The voltage and current adjustment and regulation characteristics of the PP-6148/U make it particularly ad-

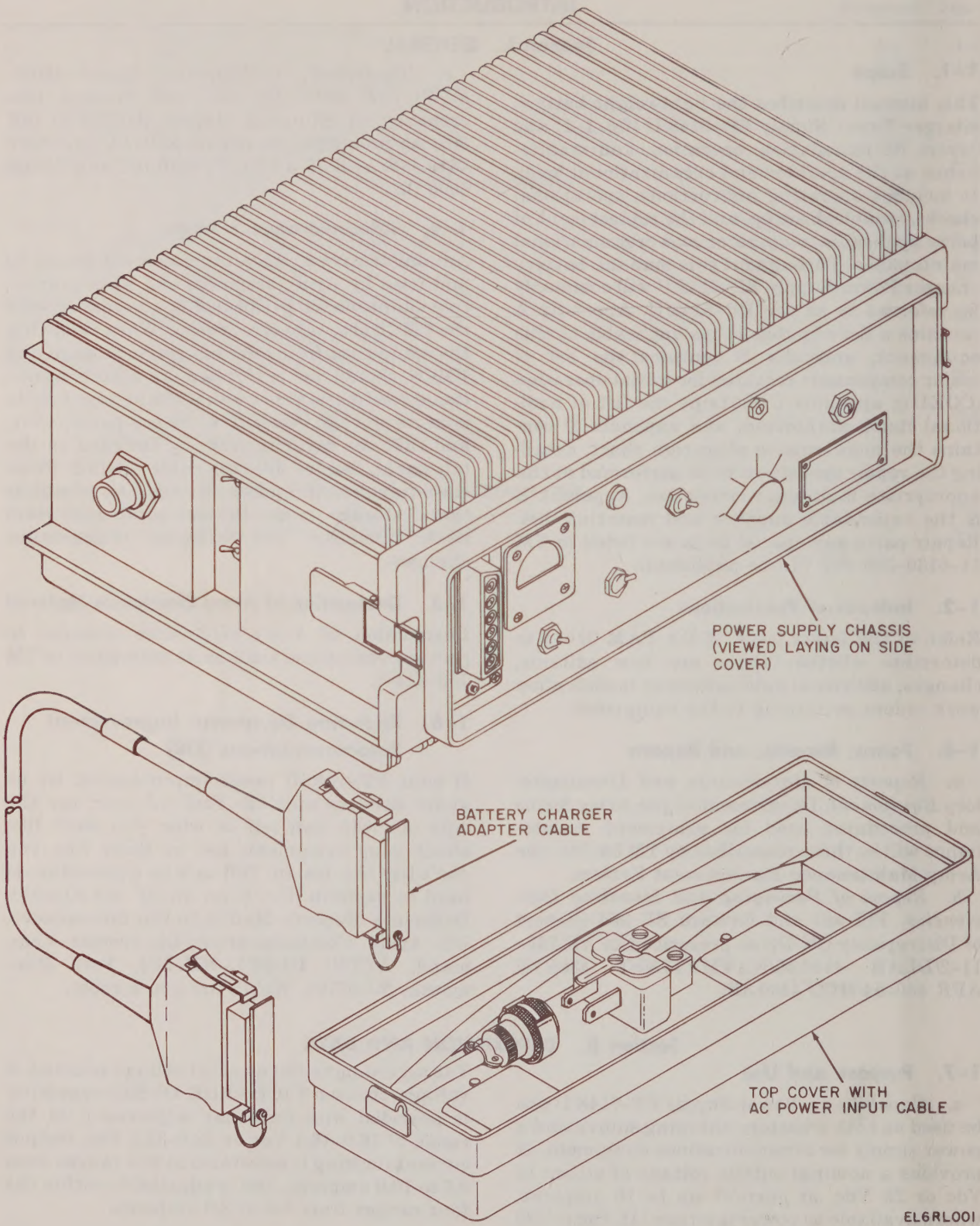


Figure 1-1. Power Supply PP-6148/U and Battery Charger Cable Assembly

Table 1-1. Technical Characteristics of Power Supply PP-6148/U

Characteristic	Specification
Input power	115/230 $^{+15\%}_{-10\%}$ Vac at 50, 60, or 400 Hz ± 5% with 10% maximum distortion and 600 V peak maximum transient (1 ms)
Power factor	0.7 minimum (lagging)
Output power	280 watts dc maximum
Selectable range	14 or 28 Vdc nominal
Adjustable range	12-16/24-32 Vdc
CHARGE OVER range (internal adjustments)	16.0-16.4 Vdc and 32.0-32.8 Vdc (manual reset)
Regulation	± 1% for line/load variations
Current limit	10 amperes maximum
Adjustable	0.5 to 8 amperes
Accuracy	± 5%
Ripple	1.0% rms maximum, 2.0% peak to peak maximum
Transients recovery	20% or less of nominal to 1% in 25 ms or less
Drift	0.5% maximum in 24 hours for constant load and ambient temperature
Stability	0.02% -50° F to +120°F

vantageous as the battery charging source for commonly used nickle-cadmium batteries such as the BB-607, BB-655, and BB-651/U. The constant-current/constant potential and voltage throw-off characteristics further qualify the PP-6148/U for charging batteries of the vented zinc-silver oxide type such as the BB-534.

c. Power Supply Use. With suitable adapter cables where required, the PP-6148/U is capable of providing the voltage and current necessary to operate military communications equipment such as Radio Set AN/PRC-70.

1-8. Description of PP-6148/U

The PP-6148/U (fig. 1-1) is housed in a metal chassis with two heat dissipating surfaces (one of which is removable for servicing) and clamps for securing the protective top panel cover or the standard interface load. The removable heatsink panel is gasket-sealed, and the assembly is watertight. The top panel of the power supply supports the dc output connector, controls, and indicators. The ac input connector and on-off switches (circuit breakers) for both input and output power are located in a recess on the side panel for ready access while a standard interface load is attached. The top panel cover provides storage accommodation for the ac power input cable. The battery charger adapter cable is provided separately.

1-9. Differences Between Models

Throughout this manual, only one model of the PP-6148/U is covered.

1-10. System Application

Basically, there are two main applications of the PP-6148/U in a system; as a battery charging source, and as a power source for communications equipment. Refer to paragraph 2-1 for information on systems planning.

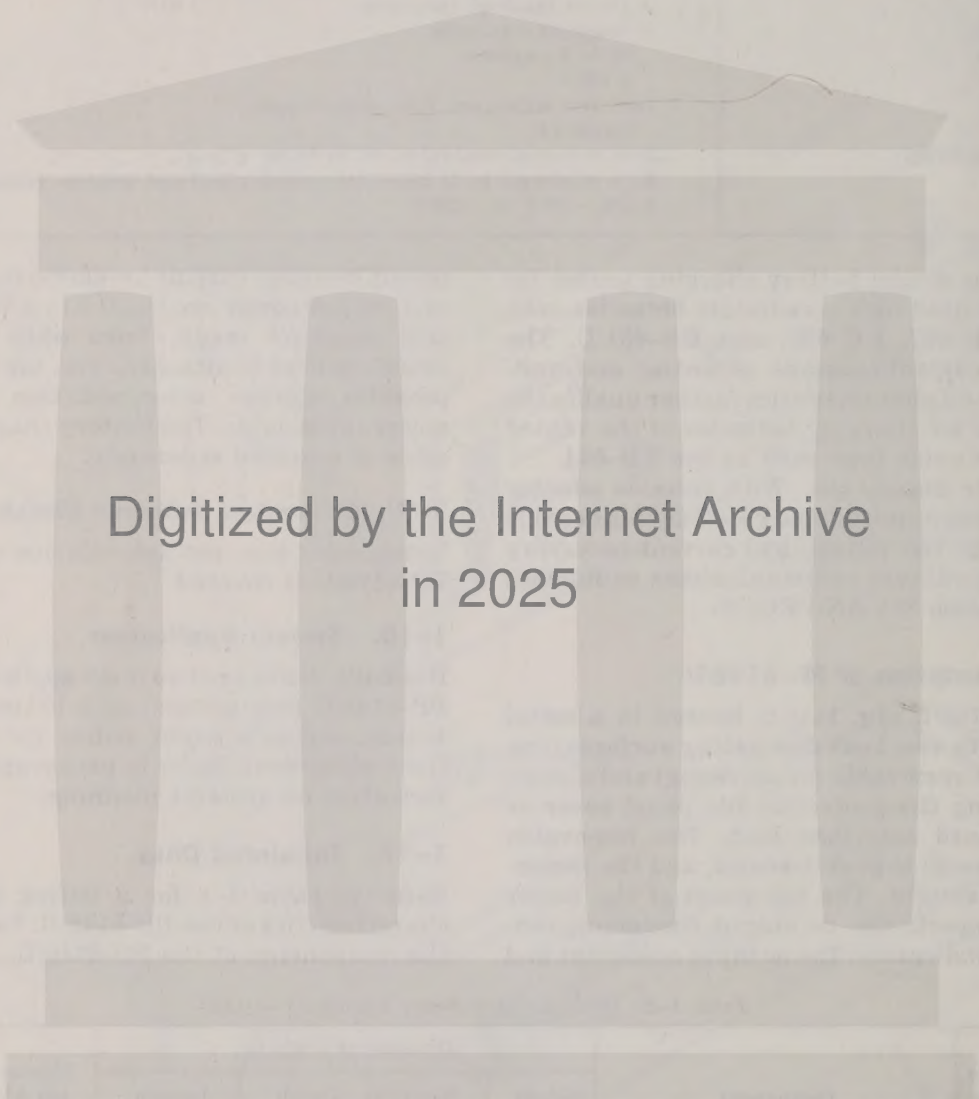
1-11. Tabulated Data.

Refer to table 1-1 for a listing of technical characteristics of the PP-6148/U. Table 1-2 lists the components of the PP-6148/U.

Table 1-2. Components of Power Supply PP-6148/U

No.	Item Qty	Component	Dimensions (inches)				Volume (cu ft)	Weight (lb)
			Height	Width	Depth	Length		
1	1	Power Supply PP-6148( )/U (with cover & carrying case)	11	13.2	5.5	—	0.5	18.6 (less cables)
2	1	Ac power input cable	*	*	*	72 (uncoiled)	*	1
3	1	Battery charger adapter cable	3.5	1	—	54 (uncoiled)	0.1	1
4	1	Operator and Organizational Maintenance Manual; TM 11-6130-356-12	12	9	1	—	0.06	1

* The ac power input cable is included with the PP-6148/U.



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CHAPTER 2

SERVICE UPON RECEIPT AND INSTALLATION

2-1. Typical Applications

The PP-6148/U is used in its typical applications as either a battery charging source or as a power source for communications equipment. The mechanical interface design of the PP-6148/U is interchangeable with military standard line rechargeable batteries. It can therefore be clamped directly to compatible communications equipment, making such normally dc-powered equipment operable from commonly available ac sources, with no significant change in mechanical configuration or space requirements. An adapter cable is provided for battery charging.

2-2. Service Upon Receipt of Material

a. Unpacking. To unpack the PP-6148/U (fig. 2-1), proceed as follows:

(1) Cut the tape sealing the top of the fiberboard box, and fold back the flaps.

(2) Remove the instruction manual and battery charger adapter cable from the protective packages.

(3) Remove the top pad.

(4) Remove the packing sleeve from around the PP-6148/U.

(5) Lift the PP-6148/U out of the box, and place it in an area for easy checking.

b. Checking Unpacked Equipment.

(1) Inspect the equipment for damage incurred furing shipment. If the equipment has been damaged, report the damage on SF 364 (para 1-3b).

(2) Check the equipment against the component listing on the equipment case and the packing slip to see if the shipment is complete. Report all discrepancies in accordance with paragraph 1-3c. The equipment should be placed in service even though a minor assembly or part that does not affect proper functioning is missing.

(3) Check to see whether the equipment has been modified. (Equipment which has been modified will have the MWO number on the front panel, near the nomenclature plate.) Check also to see whether all currently applicable MWO's have been applied. Current MWO's applicable to the equipment are listed in DA PAM 310-4.

(4) For dimensions, weights, and volume packaged items, refer to table 1-2.

2-3. Installation Instructions

When the PP-6148/U is to be used as a battery charging source or as the power source for a load device without matching mechanical interface, it is considered installed after it is unpacked and checked. When it is to be used with a standard mechanical interface radio set, the PP-6148/U is installed by clamping directly to the radio set.

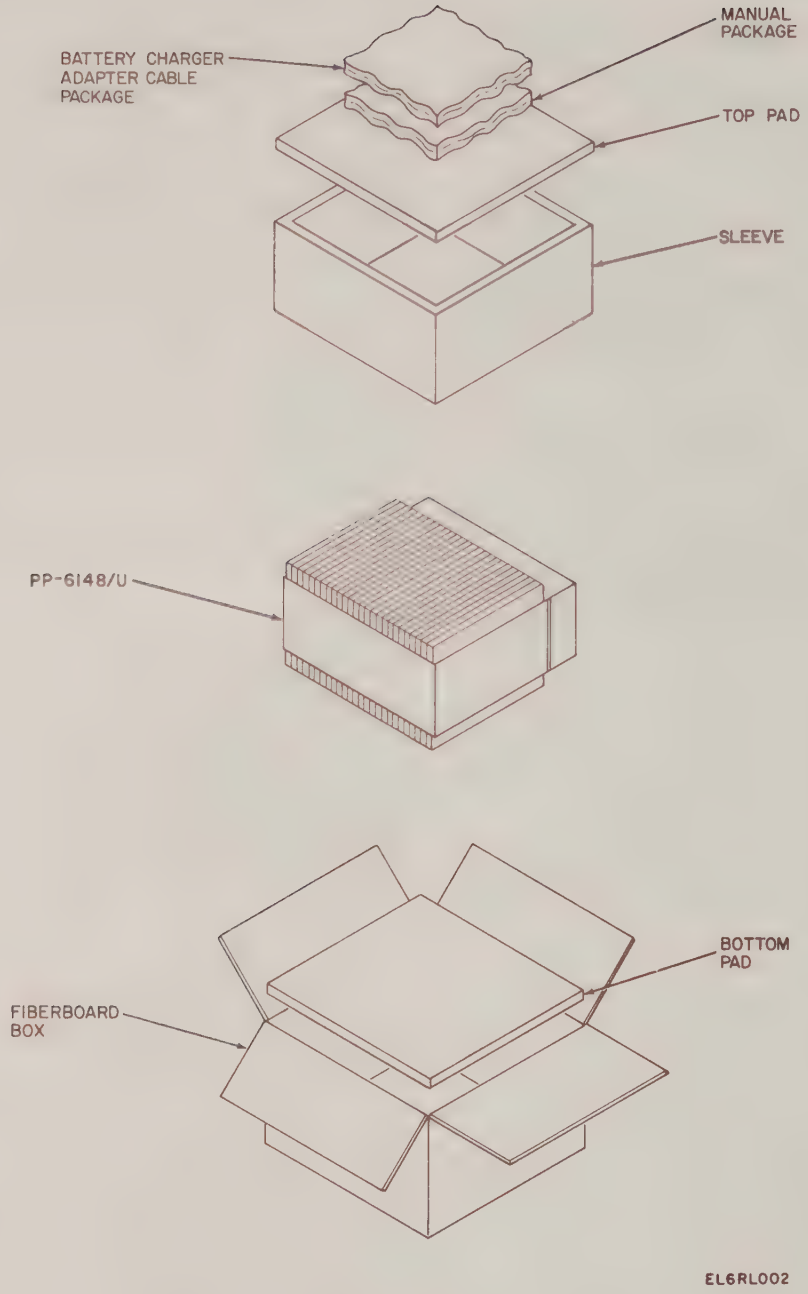


Figure 2-1. Power Supply PP-6148/U Typical Packaging

CHAPTER 3
OPERATING INSTRUCTIONS

Section I. CONTROLS AND INSTRUMENTS

CAUTION

3-1. Damage from Improper Settings

Failure to observe proper limits and polarity while recharging a battery with the PP-6148/U may result in battery damage or failure. Similarly, failure to observe polarity while connecting any load to the PP-6148/U with the battery charger adapter cable may result in damage to the load. Operating personnel should fully and carefully ascertain the recharging instructions of the battery to be charged and carefully observe all polarity when operating the PP-6148/U.

3-2. Controls, Indicators, and Connectors

Refer to table 3-1 for a listing of controls, indicators, and connectors on Power Supply PP-6148/U.

Section II. OPERATION UNDER USUAL CONDITIONS

3-3. Preliminary Starting Procedure

WARNING

To avoid shock, to be sure that the AC ON/OFF circuit breaker and the DC ON/OFF circuit breaker are set to OFF until all connections have been completed.

NOTE

Internal sensing circuits in the PP-6148/U effect automatic switching to accommodate 115 Vac or 230 Vac line voltages, and 50 Hz, 60 Hz, and 400 Hz line frequencies.

a. Additional Equipment Required. When the PP-6148/U is to be used for loads other than those with matching mechanical interface (para 2-1), the battery charger adapter cable, supplied as part of the power supply, must be used. Top panel controls VOLTAGE ADJUST and CURRENT ADJUST (FINE) require a small adjustable wrench for locking and unlocking, and a standard blade screwdriver to make adjustments. In addition, a suitable load device for use in presetting output current limit level is recommended but not essential.

b. Shutdown Status Switch Positions. Prior to putting the power supply in operation, the AC ON/OFF circuit breaker should be set to OFF, and the DC ON/OFF circuit breaker should be set to OFF.

3-4. Operational Checks

The following sequence of operational checks will verify serviceability of the PP-6148/U as after a period of disuse or, alternatively, help to more closely define functional deficiency. In the event of abnormal indications, refer to paragraph 4-4, and forward a report of abnormal indications observed, if necessary, to higher echelon maintenance when the power supply is sent for repair.

a. With input power connected, the AC ON/OFF circuit breaker at ON, and no load device connected to the output, check for normal OUTPUT meter indication with the VOLT SELECT 14V/28V switch positioned at 14V.

b. Unlock the VOLTAGE ADJUST control and operate the control through its full range. The OUTPUT meter indication should change progressively as the control is operated, and the CHARGE OVER indicator should light as the output voltage level approaches the high limit.

c. Operate the CHARGE RESET switch; the CHARGE OVER indicator should go out.

d. Connect a suitable load device to the PP-6148/U to exercise the PP-6148/U over its full output current range.

e. Set the DC ON/OFF circuit breaker to ON.

f. Position the CURRENT RANGE switch at 1 and unlock the CURRENT ADJUST (FINE) control. Hold the VOLTS/AMPS switch at AMPS, and observe the OUTPUT meter indication as the CURRENT ADJUST (FINE) control is operated through its full range. The OUTPUT meter indication should change progressively as the control is operated.

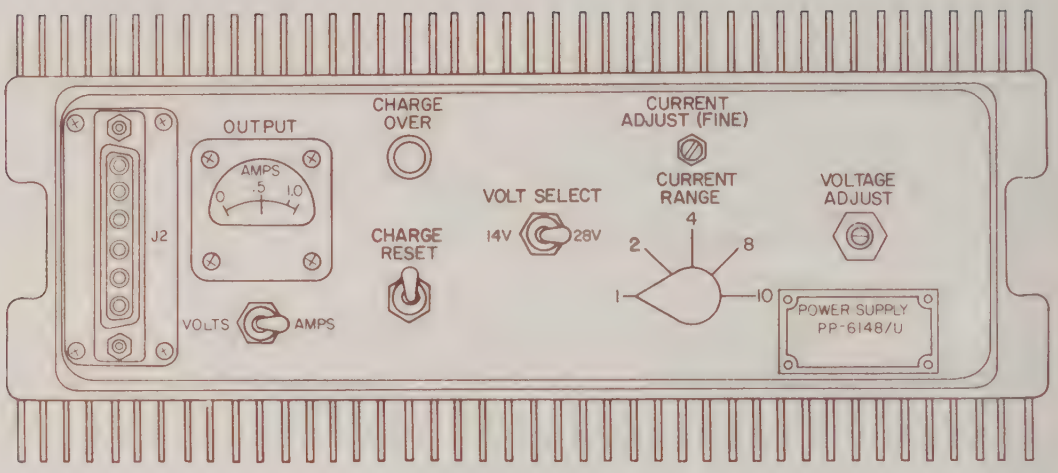
g. Repeat step f above with the CURRENT RANGE switch successively positioned at 2, 4, and 8.

h. Check for normal OUTPUT meter indication with the CURRENT RANGE switch at 10.

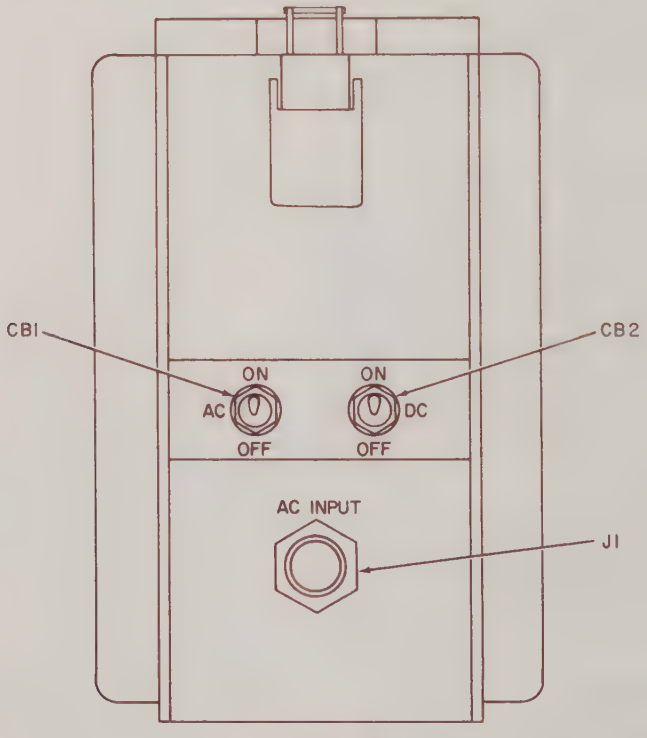
i. Repeat steps a through h above with the VOLT SELECT 14V/28V switch at 28V.

3-5. Operation with Standard Mechanical Interface Radio Sets

a. Ascertain the nominal battery voltage required for the radio set to be used.



TOP VIEW



LEFT SIDE VIEW

EL6RL003

Figure 3-1. Power Supply PP-6148/U Controls, Indicators, and Connectors

Table 3-1. Controls, Indicators, and Connectors

Control, indicator or connector	Function
Located on Side Panel	
AC INPUT connection J1	Connects the power supply to an external 115- or 230-Vac power source through the ac power input cable.
AC ON/OFF switch CB1 (circuit breaker)	Connects, disconnects, and limits input ac power from the AC INPUT connector J1 to power supply circuits.
DC ON/OFF switch CB2 (circuit breaker)	Connects, disconnects, and limits the regulated, filtered output dc power from the power supply circuits to the dc output connector J2 (on the front panel).
Located on Top Panel	
Dc output connector J2	Provides the connection for the power supply output to external loads.
OUTPUT meter M1	Indicates the level of the dc output voltage or current according to the position of the VOLTS/AMPS switch S4.
VOLTS/AMPS switch S4 (spring return)	OUTPUT meter M1 normally indicates dc output voltage. Spring-return switch (while holding AMPS position) connects OUTPUT meter M1 to indicate output current.
CHARGE OVER indicator DS1	For battery charger use, lights up when the voltage throw-off control has disconnected the power circuits from the battery being charged.
CHARGE RESET switch S3 (spring-return)	Releases the output voltage cut-off relay, and disables this protective circuit while the switch is held against the return spring.
VOLT SELECT 14V/28V switch S1	Reconnects power, regulation, and monitoring circuits for the nominal output voltage range to which it is positioned.
CURRENT RANGE switch S2	5-positions (1-2-4-8-10). Reconnects power, control, and monitor components to limit and indicate the output current for the range selected.
CURRENT ADJUST (FINE) control R2 (screwdriver slot and locking nut)	Enables adjustment of the output current limit within the range of the nominal value selected by the position of the CURRENT RANGE switch switch S2 in 1-2-4-8 positions.
VOLTAGE ADJUST control R1 (screwdriver slot and locking nut)	Enables adjustment of the output voltage within the range selected by the position of the VOLT SELECT 14V/28V switch S1: *Position Adjustment range not less than* 14V 12 to 16 Vdc 28V 24 to 32 Vdc

b. Make certain that the VOLT SELECT 14V/28V switch is correctly positioned for the voltage required.

c. Position the CURRENT RANGE switch at 10 for normal applications. (Limiting at lower output current levels can be used, as required.)

d. Connect the PP-6148/U to a compatible ac power receptacle, using the ac power input cable.

e. Set the AC ON/OFF circuit breaker to ON.

f. Monitor the OUTPUT meter for the output voltage limit level.

g. If necessary, unlock the VOLTAGE ADJUST control and readjust the output voltage limit to correspond to the required level (step a above). Relock the VOLTAGE ADJUST control.

h. Make sure the DC ON/OFF circuit breaker is OFF, and attach and clamp the PP-6148/U to the standard mechanical interface radio set previously selected.

i. Set the DC ON/OFF circuit breaker to ON. Regulated, filtered dc at the voltage level established, up to a limit of 10 amperes, is now available as required for the radio set.

j. Operate the radio set in accordance with the pertinent technical manual.

k. When the radio set and the PP-6148/U are to be placed in standby condition, set the DC ON/OFF circuit breaker to OFF and the AC ON/OFF circuit breaker to OFF.

l. When the radio set and the PP-6148/U are to be placed in shutdown status after completion of operation, remove the PP-6148/U from the radio set, and disconnect the ac power input cable from the power receptacle.

3-6. Operation as a Battery Charger

WARNING

Explosive gases may be released during battery charging operations. Be sure that the charging area is well ventilated. Do not use matches or an open flame in the charging area. Guard against short circuits; resulting arcs may cause an explosion. Do not disconnect the battery charger adapter cable from the battery until the DC ON-OFF circuit breaker is set to OFF, and the

battery charger adapter cable is disconnected from the power supply. Do not attempt to charge a damaged or leaking battery.

a. Fully and carefully ascertain the recharging instructions for the particular battery to be charged in each instance.

CAUTION

Failure to observe proper limits in recharging may result in battery damage or failure.

b. Make certain the VOLT SELECT 14V/28V switch is correctly positioned for the voltage required.

c. Make certain the CURRENT RANGE switch is correctly positioned for the battery recharging rate specified:

Recharging rate	CURRENT RANGE switch position
0.5–1 ampere	1
1–2 amperes	2
2–4 amperes	4
4–8 amperes	8
10–ampere limit	10

NOTE

CURRENT ADJUST (FINE) control can be coarsely preset within the current ranges of 1, 2, 4, and 8 of the CURRENT RANGE switch. A more precise preset of the output current limit level can be achieved (before connecting the battery) by first connecting a suitable load device or, if necessary, short-circuiting the dc output terminals. Set the DC ON/OFF circuit breaker to OFF while changing from the load device to the battery to be recharged.

d. Connect the PP–6148/U to a compatible ac power receptacle, using the ac power input cable.

e. Set the AC ON/OFF circuit breaker to ON.

f. Monitor the OUTPUT meter for the output voltage limit level. If necessary, unlock the VOLTAGE ADJUST control and readjust the output voltage limit to correspond to the specific battery recharging procedure. Relock the VOLTAGE ADJUST control. If the automatic voltage throw–off function is required for the particular battery, be sure the VOLTAGE ADJUST CONTROL has been set high enough to trip the automatic throw–off (CHARGE OVER indicator lights). Move the CHARGE RESET switch down; the lamp will go out. (Be sure the switch returns to the up position.)

g. Make sure the DC ON/OFF circuit breaker is set to OFF.

h. Using the battery charger adapter cable, connect the battery to be charged to the PP–6148/U dc output connector, carefully observing polarity.

i. Set the DC ON/OFF circuit breaker to ON.

j. Set the VOLTS/AMPS, and observe the OUTPUT meter indication while holding the switch.

k. If necessary, unlock the CURRENT ADJUST (FINE) control and, while again holding the VOLTS/AMPS switch in the AMPS position, readjust the CURRENT ADJUST (FINE) control to the specified value. Relock the control and re-verify the meter indication.

NOTE

A more precise preset of the output current limit level can be achieved (before connecting the battery) by first connecting a suitable load device or, if necessary, short-circuiting the dc output terminals, and then following steps i, j, and k. Set the DC ON/OFF circuit breaker to OFF while changing from the load device to the battery to be recharged.

l. For conditions covered in step f above, the battery will be automatically disconnected from the charging circuits when the end-point voltage is reached (CHARGE OVER indicator lights). For all other batteries, observe carefully the charging instructions.

m. For shutdown status after charging battery, set DC ON/OFF breaker to OFF, disconnect the battery charger adapter cable from the battery, and disconnect the ac power input cable from the power receptacle.

3–7. Operation as a Power Supply

a. Make certain the power requirements of the load are within the voltage-current ranges of the PP–6148/U.

b. Position the VOLT SELECT 14V/28V switch at 14V or 28V, depending on the voltage requirements of the load.

c. Position the CURRENT RANGE switch at 10 for normal use. (Limiting at lower output current levels can be used, as required).

d. Connect the power supply to a compatible ac power receptacle, using the ac power input cable.

e. Set the AC ON/OFF circuit breaker to ON.

f. Monitor the OUTPUT meter for the output voltage limit level.

g. If necessary, unlock the VOLTAGE ADJUST control and readjust the output voltage limit to correspond to the required level. Relock the VOLTAGE ADJUST control.

h. Make sure the DC ON/OFF circuit breaker is OFF.

i. Using an adapter cable, connect the load to the PP-6148/U, *carefully observing polarity* to avoid possible damage to the load.

j. Set the DC ON/OFF circuit breaker to ON, and operate the load device according to the pertinent technical manual or operating instructions.

k. To place the load device and the PP-6148/U in standby condition, set the DC ON/OFF circuit breaker to OFF and the AC ON/OFF circuit breaker to OFF.

l. When the load device and the PP-6148/U are to be placed in shutdown status after completion of operation, disconnect the load device from the PP-6148/U, and disconnect the ac power input cable from the power receptacle.

Section III. OPERATION UNDER UNUSUAL CONDITIONS

3-8. General

The PP-6148/U is designed to operate effectively in either a field environment or a permanent or semipermanent shelter or building at temperatures ranging from −50°F to +120°F. There are no special instructions for obtaining optimum operation of the PP-6148/U under unusual conditions.

3-9. Operation Under Emergency Conditions

In the event of reduction of input power, partial failure, failure of a portion of the equipment, absence of a minor assembly or part that does not affect proper functioning, or similar emergency conditions, perform the operational checks of paragraph 3-4 to verify serviceability of the PP-6148/U before placing it in service.

CHAPTER 4
OPERATOR AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

NOTE

If the equipment must be kept in continuous operation, check and service only those items that can be checked and serviced without disturbing operation. Make the complete checks and services when the equipment can be shut down.

Section I. OPERATOR MAINTENANCE

4-1. Tools and Equipment

Maintenance tasks assigned to the operator involve the use of a variable load device (not provided) as the only test equipment required.

4-2. Precautions, and Resolving Equipment Failure

a. Before You Operate. Always keep in mind the CAUTIONS and WARNINGS. Perform your Before Operation PMCS.

b. While You Operate. Always keep in mind the CAUTIONS and WARNINGS.

c. If Your Equipments Fails to Operate. Troubleshoot by following instructions in paragraph 4-4. If failure continues, refer to organizational maintenance.

4-3. Preventive Maintenance Checks and Services (PMCS)

Systematic care and inspection of the PP-6148/U can prevent failure, reduce downtime, and assure equipment serviceability. Perform the tasks of table 4-1 before each use of the PP-6148/U. Refer any evidence of approaching failure to the assigned maintenance echelon.

4-4. Troubleshooting Chart

If the PP-6148/U fails to function normally, make sure that all controls and switches are correctly positioned for the intended operation, check for disconnected or improperly connected power cables, and check that the ac input power source is correct and operative. If these checks do not locate the trouble, and the PP-6148/U is functioning in part, refer to table 4-2 for a listing of the most frequent malfunctions, their probable causes, and the corrective actions required. Any malfunction that is beyond the scope of the operator to correct shall be referred to organizational maintenance.

4-5. Maintenance of PP-6148/U

a. General. Maintenance of the PP-6148/U at the operator level is restricted to inspection and testing of the PP-6148/U. (Refer to *b* and *c* below.)

b. Inspection. Perform the tasks of table 4-1 before each use of the PP-6148/U, or as otherwise required by operating conditions.

c. Testing. To test the power supply's serviceability, perform the procedures of paragraph 3-1. To test the power supply's capability as a battery charger, perform the procedures of paragraph 3-6, using nickel-cadmium battery BB-651/U. In the event of abnormal indications, refer to paragraph 4-4, and forward a report of abnormal indications observed, if necessary, to higher echelon maintenance when the power supply is sent for repair.

Section II. ORGANIZATIONAL MAINTENANCE

4-6. Tools and Equipment

Refer to the maintenance allocation chart (appx D), and the repair parts and special tools list (RPSTL), TM 11-6130-356-20P (To be published), for information on repair parts, special tools, or items of test equipment required.

4-7. Repainting and Refinishing

Touchup of small damaged paint areas to prevent rust and corrosion is authorized for the PP-6148/U. All paints and finishes are listed in SB 11-573, Painting and Preserving Supplies Available for Field Use for Electronics Command Equipment. Refer to TB 43-0118, Field Instructions for Painting and Preserving Electronic Equipment.

CAUTION

Do not paint over panel lettering, stencilling, labels, warning notices, or glass window.

a. Lightly sand touchup area with fine sandpaper, and wipe with clean cloth.

b. Apply two thin paint coats, forest green, lusterless in accordance with MIL-E-52835 or MIL-E-52798, and protective finish in accordance with MIL-F-14072.

4-8. Preventive Maintenance Checks and Services (PMCS)

Periodic preventive maintenance checks and services on the PP-6148/U are required according to prevailing operating conditions and direc-

Table 4-1. Operator Preventive Maintenance Checks and Services Before Operation Schedule

Item No.	Item to be inspected	Procedures	Equipment will be reported not ready (Red) if:
1	Power supply	Remove dust, dirt, grease, and moisture from exterior of power supply.	
2	Controls and switches	Check that all controls and switches work smoothly with no unusual catching or binding, that knobs are tight on the shafts, and that the spring-return switches (VOLTS/AMPS and CHARGE RESET) do return to their normal positions (left and up, respectively).	Controls and switches catch or bind, knobs are loose on shafts, or spring-return switches (VOLTS/AMPS and CHARGE RESET) fail to return to their normal positions (left and up, respectively).
3	Ac power input cable	Check the ac power input cable for any evidence of loose connections or damaged insulation.	The ac power input cable shows any evidence of loose connections or damaged insulation.
4	Battery charger adapter cable	Check the battery charger adapter cable for evidence of corrosion, loose connections, or damaged insulation.	The battery charger adapter cable shows any evidence of corrosion, loose connections, or damaged insulation.
5	Handle	Check handle for evidence of cuts, tears, or weakening whenever the protective top panel cover is secured to the power supply.	

tives of local authority. Operator preventive maintenance checks and services (para 4-3) constitute a part of the organizational periodic preventive maintenance checks and must be performed concurrently. All deficiencies or shortcomings will be recorded in accordance with the requirements of TM 38-750. Perform all the tasks of table 4-3 as often as required by prevailing operating conditions and directives of local authority. Refer any evidence of approaching failure to the assigned maintenance echelon.

4-9. Troubleshooting

a. Troubleshooting Chart. If the PP-6148/U fails to function normally, refer to paragraph 4-4, and perform operator troubleshooting procedures.

b. Checking OUTPUT Meter Function. To check the function of the OUTPUT meter with no load applied, proceed as follows:

(1) Connect Multimeter AN/URM-105 to dc output connector.

(2) Set the VOLT SELECT 14V/28V switch to 28V.

(3) Set the AC ON/OFF circuit breaker to OFF.

(4) Set the DC ON/OFF circuit breaker to OFF.

(5) Set the multimeter selector switch to indicate 100 Vdc.

(6) Connect the ac power input cable to the AC INPUT connector and a 115 Vac power source.

(7) Set AC ON/OFF circuit breaker to ON.

(8) Set the DC ON/OFF circuit breaker to ON.

(9) Observe the multimeter while rotating VOLTAGE ADJUST control for a 24.0 Vdc indication. Check the power supply OUTPUT meter. It should also indicate 24.0 Vdc (±5%, approximately one-half a meter face division).

Table 4-2. Troubleshooting Chart

MALFUNCTION	Probable cause	Corrective action
1. CHARGE OVER indicator fails to light when the VOLTAGE ADJUST control is turned fully clockwise; OUTPUT meter indication is normal (17 V or 34 V) according to VOLT SELECT 14V/28V switch position.	*a.* Defective CHARGE OVER indicator. *b.* Defective battery charger adapter cable. *c.* Defective power supply.	*a.* Refer to higher echelon maintenance. *b.* Refer to higher echelon maintenance. *c.* Refer to higher echelon maintenance.
2. Abnormal indications observed during operational checks.	*a.* Defective ac power input cable. *b.* Defective power supply.	*a.* Refer to higher echelon maintenance. *b.* Refer to higher echelon maintenance.

Table 4-8. Organizational Preventive Maintenance Checks and Services Schedule

Item No.	Item to be inspected	Procedures	Equipment will be reported not ready (Red) if:
1	Publications	See that all publications are complete, serviceable, and current.	All publications are not complete, serviceable, and current.
2	Modifications	Determine whether new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	URGENT MWO's have not been applied or NORMAL MWO's have not been scheduled.
3	Metal surfaces	Inspect metal surfaces for rust and corrosion. Clean and touchup paint as required.	Excessive rust or corrosion on metal surfaces.
4	Connectors (power supply and cables)	Inspect receptacles for snug fit and good contact.	Receptacles show evidence of loose fit or poor contact.
5	Terminals	Inspect all external terminals. All screws must be tight. No dirt or corrosion must be evident.	Loose screws or excessive dirt or corrosion evident.
6	Controls and switches	Perform operational check of paragraph 3-4.	Abnormal indications are observed during operational check.

(10) Repeat step (9) above at 28.0 and 34.0 Vdc. The OUTPUT meter and multimeter reading should agree within ±5% of each voltage level. (At 34 Vdc, 5% is a little less than one full meter face division.)

(11) Repeat steps (9) and (10) above with VOLT SELECT 14V/28V switch at 14V, at 12, 14 and 17 Vdc levels.

(12) Set the DC ON/OFF circuit breaker and then the AC ON/OFF circuit breaker to OFF and disconnect all equipment.

(13) Variations in excess of ±10 percent between the indications of the two meters may indicate component deterioration, and should be referred to higher echelon maintenance.

4-10. Maintenance and Repair of PP-6148/U

a. General. Maintenance of the PP-6148/U at the organizational level consists of those maintenance procedures assigned to operator maintenance (para 4-5), inspection, testing, servicing, and installation of the PP-6148/U, as well as replacement of CHARGE OVER indicator DS1, ac power input cable assembly W1, and battery charger adapter cable assembly W2, and repair of ac power input cable assembly W1. Refer to paragraphs 3-4 and 4-5 for inspection and testing procedures, and paragraph 2-3 for installation.

b. Cleaning. Inspect the exterior surfaces of the PP-6148/U. The exterior surfaces should be clean and free of dust, dirt, grease and fungus.

(1) Remove dust and loose dirt with a clean, soft cloth.

WARNING

Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

CAUTION

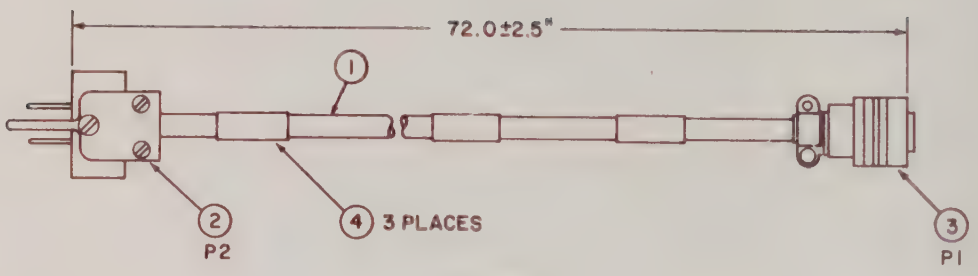
Do not press hard on panel meter face when cleaning. Damage to panel meter may result.

(2) Remove grease, fungus, and ground-in dirt from the case with a cloth dampened (not wet) with trichlorotrifluoroethane (item 1, appx E).

(3) Remove dust or dirt from connections with a soft brush.

(4) Clean the top panel, indicator lens, and control knobs, using a soft, clean cloth. If dirt is difficult to remove, dampen the cloth with water. Use mild soap if necessary.

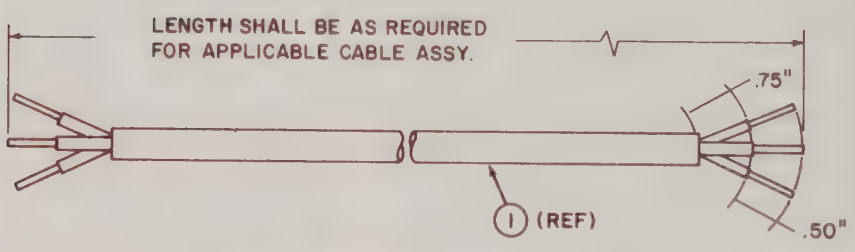
c. Replacement of CHARGE OVER Indicator DS1. To remove CHARGE OVER indicator DS1 (consisting of lamp, lens, and indicator light), turn the lens counterclockwise until the threads are disengaged. Separate the indicator proper



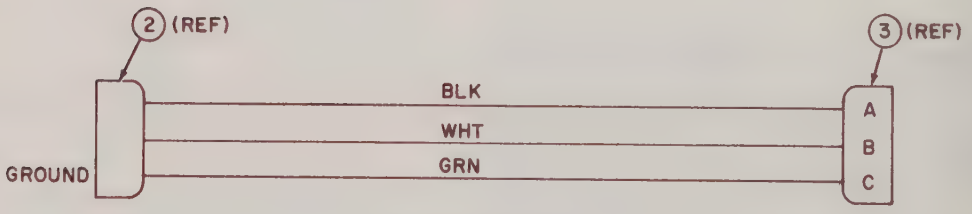
NOTES:

1. CABLE CO-03MOF (3/18) 0340.
2. CONNECTOR UP221M.
3. CONNECTOR MS3116F12-3S.
4. IDENTIFICATION BAND MARKED 80063 SM-D-595316.

A. COMPLETE ASSEMBLY



B. CABLE PREPARATION DETAILS



C. WIRING DIAGRAM

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Figure 4-1. Ac Power Input Cable Assembly W1

from the lens and insert replacement indicator lamp. Make sure the rubber O-ring is in place. Re-engage threads, and tighten securely (finger-tight) to be sure the O-ring seats and seals properly.

d. Replacement of Ac Power Input Cable Assembly W1 and Battery Charger Adapter Cable Assembly W2. To remove ac power input cable assembly W1 and battery charger adapter cable assembly W2, use standard shot techniques.

e. Repair. Organizational repair of the PP-6148/U is limited to repair of ac power input cable assembly W1 (fig. 4-1). Repair of ac power input cable assembly W1 is accomplished by replacement of the applicable connectors and wiring.

APPENDIX A
REFERENCES

DA PAM 310–4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins. Modification Work Orders and Lubrication Orders.
SB–11–573	Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment.
TB 43–0118	Field Instructions for Painting and Preserving Electronics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment Shelters.
TM 11–6130–356–20P	Organizational Maintenance Repair Parts and Special Tools List for Power Supply PP–6148/U. (To be published).
TM 11–6130–356–34	Direct Support and General Support Maintenance Manual for Power Supply PP–6148/U. (To be published).
TM 11–6130–356–34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List for Power Supply PP–6148/U. (To be published).
TM 38–750	The Army Maintenance Management System (TAMMS).
TM 750–244–2	Procedures for Destruction of Electronics Material to Prevent Enemy Use (Electronics Command).

APPENDIX B
COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section I. INTRODUCTION

B-1. Scope

This appendix lists components of end item and basic issue items for the PP-6148/U to help you inventory items required for safe and efficient operation.

B-2. General

The Components of End Item and Basic Issue Items Lists are divided into the following sections:

a. Section II—Components of End Item. This listing is for informational purposes only, and is not authority to requisition replacements. These items are part of the end item, but are removed and separately packaged for transportation or shipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Illustrations are furnished to assist you in identifying the items.

b. Section III—Basic Issue Items. These are the minimum essential items required to place the PP-6148/U in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with the PP-6148/U during operation and whenever it is transferred between property accounts. The illustrations will assist you with hard-to-identify items. This manual is your authority to request/requisition replacement BII, based on TOE/MTOE authorization of the end item.

B-3. Explanation of Columns

The following provides an explanation of columns found in the tabular listings:

a. Column (1)—Illustration Number (Illus Number). This column indicates the number of the illustration in which the item is shown.

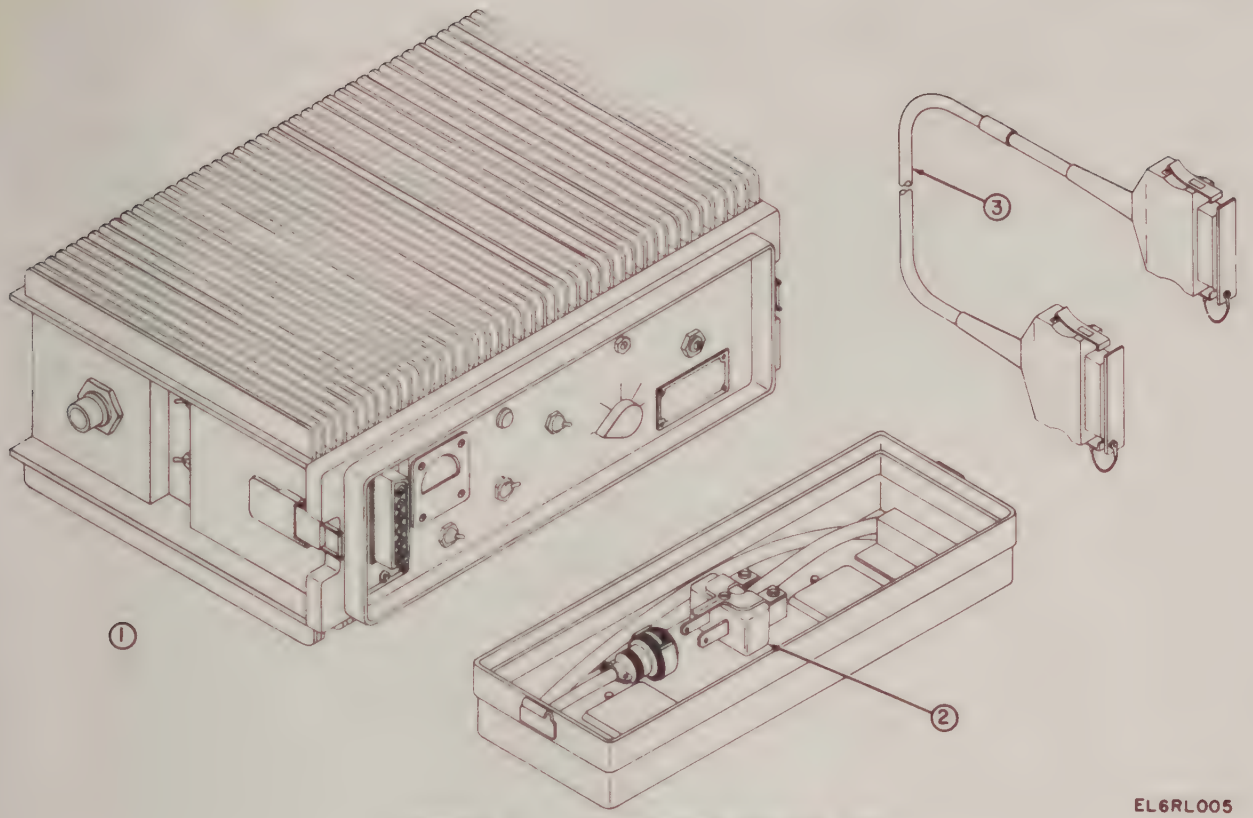
b. Column (2)—National Stock Number. Indicates the National stock number assigned to the item. The National stock numbers in section III will be used for requisitioning basic issue items.

c. Column (3)—Description. Indicates the National item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the FSCM (in parentheses) followed by the part number.

d. Column (4)—Unit of Measure (U/M). Indicates the measure used in performing the actual operational/maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr).

e. Column (5)—Quantity required (Qty Rqd). Indicates the quantity of the item authorized to be used with/on the equipment.

(Next printed page is B-3)



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SECTION II COMPONENTS OF END ITEM

(1) ILLUS NO.	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION (FSCM) AND PART NUMBER / USABLE ON CODE	(4) U/M	(5) QTY REQD
1	6130-01-062-3618	POWER SUPPLY (80058) PP-6148/U	EA	1
2		CABLE ASSY, SP, ELEC, AC (80063) SM-D-595316	EA	1
3		CABLE ASSY, SP, ELEC, BATTERY CHARGER (80063) SM-D-5067126	EA	1

APPENDIX C
ADDITIONAL AUTHORIZATION LIST

Section I. INTRODUCTION

C-1. Scope

This appendix lists additional items you are authorized for the support of the PP-6148/U.

C-2. General

This list identifies items that do not have to accompany the PP-6148/U and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

C-3. Explanation of Listing

National stock numbers, descriptions, and quantities are provided to help you identify and request the additional items you require to support this equipment. The items are listed in alphabetical sequence by item name under the type document (i.e., CTA, MTOE, TDA, or JTA) which authorizes the item(s) to you.

(Next printed page is C-3)

SECTION II ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION PART NUMBER AND FSCM USABLE ON CODE	(3) UNIT OF MEAS	(4) QTY AUTH
	MTOE AUTHORIZED ITEMS		
6140-00-935-5265	BATTERY, VENTED NI-CD, 24 VOLT (80058) BB-651/U	EA	1

APPENDIX D
MAINTENANCE ALLOCATION

Section I. INTRODUCTION

D-1. General

This appendix provides a summary of the maintenance operations for PP-6148/U. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

D-2. Maintenance Function

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and to detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust. To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

e. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipments used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment or system.

h. Replace. The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. Overhaul. That maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipments/Components.

D-3. Column Entries.

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in column 2. When items are listed without maintenance functions, it is solely for purpose of having the group numbers in the MAC and RPSTL coincide.

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a "work time" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories,

appropriate "work time" figures will be shown for each category. The number of task-hours specified by the "work time" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. Subcolumns of column 4 are as follows:

C—Operator/Crew
O—Organizational
F—Direct Support
H—General Support
D—Depot

e. Column 5, Tools and Equipment. Column 5 specifies by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

f. Column 6, Remarks. Column 6 contains an alphabetic code which leads to the remark in section IV, Remarks, which is pertinent to the item opposite the particular code.

D–4. Tool and Test Equipment Requirements (Sect. III).

a. Tool or Test Equipment Reference Code. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool or test equipment for the maintenance functions.

b. Maintenance Category. The codes in this column indicate the maintenance category allocated the tool or test equipment.

c. Nomenclature. This column lists the noun name and nomenclature of the tools and test equipment required to perform the maintenance functions.

d. National/NATO Stock Number. This column lists the National/NATO stock number of the specific tool or test equipment.

e. Tool Number. This column lists the manufacturer's part number of the tool followed by the Federal Supply Code for manufacturers (5-digit) in parentheses.

D–5. Remarks (Sect. IV).

a. Reference Code. This code refers to the appropriate item in section II, column 6.

b. Remarks. This column provides the required explanatory information necessary to clarify items appearing in section II.

(Next printed page is D–3)

SECTION II MAINTENANCE ALLOCATION CHART FOR POWER SUPPLY PP-6148/U

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQPT.	(6) REMARKS
			C	O	F	H	D		
00	POWER SUPPLY PP-6148/U	Inspect	0.1						A
		Inspect		0.2				1	
		Service		0.2				1	
		Test	0.1						B
		Test		0.2				3	C
		Test			1.0			4 thru 9	D
		Adjust		0.1				1	E
		Replace		0.1				1	F
		Replace			0.2			2	
		Repair			1.0			2	
		Overhaul					28	2,4 thru 9	
01	COVER ASSEMBLY A1	Test			0.2			4 thru 7	
		Replace			0.5			2	
		Repair			1.0			2	
0101	CIRCUIT CARD ASSEMBLY, CONVERTER A1A1	Test			0.2			4 thru 7	
		Replace			0.5			2	
		Test				0.5		4 thru 7	
		Repair				1.0		2	
02	CIRCUIT CARD ASSEMBLY, CONTROL A2	Test			0.2			4 thru 7	
		Replace			0.5			2	
		Test				0.5		4 thru 7	
		Repair				1.0		2	
03	RESISTOR PLATE ASSEMBLY A3	Test			0.2			4	
		Replace			0.5			2	
		Repair			1.0			2	
04	CABLE GROUP								
0401	CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL AC (W1)	Test		0.1				3	
		Replace		0.1				1	
		Repair		0.5				1	
0402	CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL, BATTERY CHARGER (W2)	Test		0.1				3	
		Replace		0.1				1	

SECTION III TOOL AND TEST EQUIPMENT REQUIREMENTS
FOR
POWER SUPPLY PP-6148/U

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	O	TOOL KIT, ELECTRONIC EQUIPMENT TK-101/G	5180-00-064-5178	
2	F,H,D	TOOL KIT, ELECTRONIC EQUIPMENT TK-105/G	5180-00-610-8177	
3	O	MULTIMETER, AN/URM-105	6625-00-581-2036	
4	F,H,D	MULTIMETER, AN/USM-223/U (TS 352B/U (2 EA)	6625-00-999-7465	
5	F,H,D	VOLTMETER, ELECTRONIC ME-202/U	6625-00-709-0288	
6	F,H,D	TEST SET, SEMICONDUCTOR DEVICE TS-1836D/U	6625-00-159-2263	
7	F,H,D	OSCILLOSCOPE AN/USM-281	6625-00-106-9622	
8	F,H,D	TRANSFORMER, VARIABLE POWER TF-510/U	6120-00-054-7794	
9	F,H,D	DUMMY LOAD, ELECTRICAL DA-638/U (2 EA)	6625-00-422-21111	

SECTION IV. REMARKS

REFERENCE CODE	REMARKS
A	EXTERIOR
B	OPERATIONAL
C	INPUT-OUTPUT VOLTAGE; CONTINUITY POWER CABLES
D	ALL
E	OUTPUT VOLTAGE AND CURRENT
F	LENS, LAMP, AND KNOB

APPENDIX E
EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

E-1. Scope

This appendix lists expendable supplies and materials you will need to operate and maintain the PP-6148/U. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

E-2. Explanation of Columns

a. Column 1—Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cleaning compound, item 5, App. D").

b. Column 2—Level. This column identifies the lowest level of maintenance that requires the listed item.

C—Operator/Crew
O—Organizational Maintenance
F—Direct Support Maintenance
H—General Support Maintenance

c. Column 3—National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

d. Column 4—Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the part number followed by the Federal Supply Code for Manufacturer (FSCM) in parentheses, if applicable.

e. Column 5—Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

E-3. Special Information

National stock numbers (NSN's) that are missing from section II have been applied for and will be added to this TM by future Change/Revision when they are entered in the Army Master Data File (AMDF). Until the NSN's are established and published, submit exception requisitions to: Commander, US Army Communications-Electronics Command, ATTN: DRSEL-MM, Fort Monmouth, New Jersey 07703 for the part required to support your equipment.

(Next printed page is E-3)

SECTION II EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION PART NO. AND FSCM	(5) UNIT OF MEAS
1	0	6850-00-105-3084	TRICLOROTRIFLUORETHANE	Qt

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)
Commander
Stateside Army Depot
ATTN: AMSTA-US
Stateside, N.J. 07703

DATE SENT
10 July 1975

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 11-5840-340-12	23 Jan 74	Radar Set AN/PRC-76

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO	IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
2-25	2-28			Recommend that the installation antenna alignment procedure be changed throughout to specify a 2^{o} IFF antenna lag rather than 1^{o}. REASON: Experience has shown that with only a 1^{o} lag, the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing strain to the drive train. Hunting is minimized by adjusting the lag to 2^{o} without degradation of operation.
3-10	3-3		3-1	Item 5, Function column. Change "2 db" to "3db." REASON: The adjustment procedure the the TRANS POWER FAULT indicator calls for a 3 db (500 watts) adjustment to light the TRANS POWER FAULT indicator.
5-6	5-8			Add new step f.1 to read, "Replace cover plate removed in step e.1, above." REASON: To replace the cover plate.
		F03		Zone C 3. On J1-2, change "+24 VDC to "+5 VDC." REASON: This is the output line of the 5 VDC power supply. +24 VDC is the input voltage.

SAMPLE

PRINTED NAME GRADE OR TITLE, AND TELEPHONE NUMBER
SSG I. M. DeSpiritof 999-1776

SIGN HERE
I. M. DeSpiritof

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P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

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SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 11-6130-356-12	21 Aug 81	Power Supply PP-6148/U

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARA GRAPH	FIGURE NO	TABLE NO

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

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Commander
US Army Communications-
Electronics Command
ATTN: DRSEL-ME-MQ
Fort Monmouth, New Jersey 07703

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Commander
US Army Communications -
Electronics Command
ATTN: DRSEL-ME-MQ
Fort Monmouth, New Jersey 07703

By Order of the Secretary of the Army:

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General, United States Army
Chief of Staff

Official:

B. G. JOYCE
Brigadier General, United States Army
The Adjutant General

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